

**ABSTRACT**

A method and apparatus are disclosed for scheduling arriving data packets for input to a switch having a plurality of input channels, and a plurality of output channels, the scheduling method is performed in successive scheduling phases where each scheduling phase further comprises at least  $\log N$  scheduling iterations. The method is a parallelized weight-driven input queued switch scheduling algorithm which possesses good bandwidth and delay properties, is stable, and can be configured to offer various delay and quality of service (QoS) guarantees. The scheduling method utilizes envelope scheduling techniques and considers partially filled envelopes for scheduling.